

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 1/26/2006 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 22511.

Date 7/27/06 Serial # 10/928,437 Priority Application Date 12/5/03

Your Name M. Lewis Examiner # _____

AU 2822 Phone 292-1831 Room 5A30

In what format would you like your results? Paper is the default. PAPER DISK EMAIL

If submitting more than one search request form, please prioritize the searches in order of need.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

JUL 27 2006

What relevant art have you found so far? Please attach citations or Information Disclosure Statements.

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☐ Teaching Refs ☐

Secondary Refs ☐ Foreign Patents ☐ Other ☐

Is this a "Fast & Focused Search" request? (Circle One) YES NO

A "Fast & Focused Search" is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2800 and on the STIC NPL Web Page at

<http://uspto-a-patrr-2/siraapps/stic/npl/nplsearch.htm>

What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claim:

Claims 1+10

CMOS/Memory

Decrease pitch to provide
more substrate area.

Problem: See paragraphs 2-4
Solution: " abstract

US 6,631,085
6,841,813

6,734,107

Staff Use Only

Searcher: Paul Kim

Searcher Phone: 28949

Searcher Location: STIC-EIC2800, JEF-4B68

Date Searcher Picked Up: 8/3/06

Date Completed: 8/4/06

Searcher Prep/Rev Time: 50 min

Online Time: 90 min

Type of Search

Structure (#) _____

Bibliographic _____

Litigation _____

Fulltext _____

Patent Family _____

Other _____

Vendors

STN ☒

Dialog ☐

Questel/Orbit ☐

Lexis-Nexis ☒

WWW/Internet ☐

Other _____

Reconnected in file 2 04aug06 13:19:05

File 2:INSPEC 1898-2006/Jul W4
(c) 2006 Institution of Electrical Engineers

Set	Items	Description
S1	1234987	PITCH??? OR CENTER (1N) CENTER OR CRITICAL () DIMENSION? ? OR MINIMUM () LINE? ? OR MINIMUM () SPACE? ? OR SPACING? ? OR DENSIT??? OR SIZE? ? OR DENSE
S2	548686	SUBSTRATE? ? OR LAMINA? ? OR WAFER? ? OR DIE OR ARRAY? ?
S3	1794229	LEVEL? ? OR STACK???? OR LAYER???? OR FILM? ? OR LAMINA? ? OR INTERLAYER???? OR MULTILAYER???? OR MULTI () LAYER????
S4	1233844	DEVICE? ? OR COMPONENT? ? OR TRANSISTOR? ?
S5	3053842	INCREASED OR HIGHER OR HIGH OR MORE OR GREATER OR LARGER
S6	4577	MEMORY () CELL? ? OR ANTIFUSE () DIODE? ?
S7	112152	S1 (2N) S5
S8	17438	S7 AND S2
S9	10358	S8 AND S3
S10	3161	S9 AND S4
S11	261	S10 AND PITCH
S12	154178	S3 (2N) (ABOVE OR HIGH OR SECOND OR TOP OR OVERHEAD OR UPPER OR PINNACLE)
S13	5496	S12 AND S7
S14	1755	S13 AND S2
S15	514	S14 AND S4
S16	44	S15 AND PITCH
S18	125	S12 AND PITCH AND DENSITY
S19	78	S18 AND S2
S20	45	S19 NOT S17
S21	17	S20 AND PY=1997:2003



Edit an existing query or
compose a new query in the
Search Query Display.

Fri, 4 Aug 2006, 3:00:28 PM EST

Search Query Display

Select a search number (#)
to:

- Add a query to the Search Query Display
- Combine search queries using AND, OR, or NOT
- Delete a search
- Run a search

Recent Search Queries

		Results
#1	((pitch<and>substrate)<and>multilayer) <and> (pyr >= 1998 <and> pyr <= 2003)	404
#2	(((((pitch<and>substrate)<and>multilayer) <and> (pyr >= 1998 <and> pyr <= 2003))<AND>(density<in>metadata))	91
#3	((substrate<and>pitch)<and>stacked) <and> (pyr >= 2000 <and> pyr <= 2003)	427
#4	((substrate<and>pitch)<and>stacked) <and> (pyr >= 2000 <and> pyr <= 2003)	427
#5	(((((substrate<and>pitch)<and>stacked) <and> (pyr >= 2000 <and> pyr <= 2003))<AND>(density<in>metadata))	81



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multilayered AND ("device densities" OR "device density")

Search

☒ Journal sources ☒ Preferred Web sources ☒ Other Web sources ☐ Exact phrase

Searched for:: :All of the words:multilayered AND ("device densities" OR "device density")

Found:: :29 total | [4 journal results](#) | [21 preferred web results](#) | [4 other web results](#)

Sort by:: :relevance | [date](#)

Save checked results

Email checked results

Export checked results

- ☐ 1. [Model for interface formation and the resulting electrical properties for barium-strontium-titanate films on silicon](#)
A. H. Mueller / N. A. Suvorova / E. A. Irene / O. Auciello / J. A. Schultz, *Journal of Applied Physics*, Mar 2003

...area, and I the insulator thickness. As the lateral dimensions of the gate are decreased, so as to increase the on-chip **device density**, the downward scaling for the gate dielectric layer thickness of below 2 nm for the field effect transistor is limited by...

Published journal article available from  **Scitation**

[view all 2 results from Scitation](#)

[similar results](#)

- ☐ 2. [technical digest4.PDF](#) [PDF-116K]

Jul 2001

...Laboratoire de magnétisme de Bretagne, BP 809, 29285 Brest, France Introduction In magneto-optical (MO) recording technology, **multilayered** structures of rare-earth transition metal alloys (RE-TM) are extensively investigated since magnetic coupling (exchange or...

[http://www.minatec.com/minatec2001/IMST_technical-dige...]

[similar results](#)

- ☐ 3. [Determining the unfolding behaviors of beta barrel proteins by hydrogen exchange and mass spectroscopy](#)

1971- Raza, Ashraf S., Jan 2003

Thesis (Ph. D.)--University of Nebraska-Lincoln, 2003. Title from title screen. PDF of dissertation: xix, 393 p. : ill. (some col.). Sites viewed on Feb. 19, 2004. Includes bibliographical references.

Full text thesis available via NDLTD

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- ☐ 4. [Essays on the workings and uses of futures markets](#)

1969- Bryant, Henry L., Jan 2003

Thesis (Ph. D.)--Texas A&M University, 2003. "Major Subject: Agricultural Economics" Title from author supplied metadata. Includes bibliographical references.

Full text thesis available via NDLTD

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Refine your search using these keywords found in the results

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[materia](#)

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[tamarack](#)

[time-of-flight](#)

[wolverine](#)

Or refine using:

[All of the words](#)

Refine

04aug06 12:22:15 User291227 Session D167.1

File 342:Derwent Patents Citation Indx 1978-05/200648
(c)2006 The Thomson Corp.

S1 39 CT=(JP 2106968 OR US 5060045 OR US 20030053332 OR US
6631085 OR US 20030030074)

SYSTEM:OS - DIALOG OneSearch

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)
(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD=200648
(c) 2006 The Thomson Corporation

Set	Items	Description
S1	68	S1:S11
S2	62	S1 AND PY=1990:2004
S3	19	S1 AND (DENSE OR DENSIT???)
S4	24	S2 AND (STACK??? OR MULTI () LAYER?? OR LEVEL? ?)
S5	15	S4 NOT S3